

REMARKS

Comments of the applicant are preceded by related comments of the examiner. In the action of December 29, 2006, the examiner stated:

1. Claims 1-6, 8, 10-14 are rejected under 35 U.S.C. 102(e) as being anticipated by Chirashnya et al. US Patent No. 7, 113,988. Chirashnya teaches the invention as claimed including a method for diagnosing faults and alarms on a causal network (see abstract).
2. As per claim 1 and 10, Chirashnya teaches a method comprising and an apparatus comprising a network element having
processing information to identify network faults that cause or are caused by other network faults that contribute to a failure of a network element in which at least some of the network faults are occurring (agents gather systems events on a causal network and send the events to an event collector; column 3, lines 17-30, column 7, lines 54-65; column 8, lines 50-65; column 15, lines 29-45);
based on the results of the information processing, generating traps with respect to fewer than all of the network faults that are occurring (alarms are generated with each event; column 9, lines 46-49; column 10, lines 6-20; column 13, lines 1-10); and sending the traps to a network management station (events are sent to the primary event collector 32 running on the primary node 26; column 7, lines 54-65; column 10, lines 6-20).

After the applicant presented arguments why this was incorrect, the examiner stated, in the advisory action, that:

Applicant argues that there is no disclosure of generating a batch alarm based on the results of "processing information to identify network faults that cause or are caused by other network faults." The reference Chirashnya teaches a fault notification system by "[...]A recommendation and explanation generator 52 receives the malfunction assessments computed by diagnostic engine 48, and compares the assessments for the different modules in network 22 to expected, baseline values held in fault model 50. When the failure rate assessment for a given module is significantly higher than its baseline value, generator 52 typically recommends to the user to take further diagnostic action or to replace the FRU containing the module. Criteria for making such recommendations are described further hereinbelow. The recommendations are presented via a user interface 54. Preferably the user interface also allows the user to input queries to the recommendation and explanation generator, and in response to receive a comprehensive explanation of the rationale for the recommendation.[...]"

[apparently citing Chirashnya, col. 9, lines 49-63]

Claim 1 has been amended to make clear that the traps that are sent to the network management station are for network faults that have been identified at a network element as contributing to failure of the network element because they have a causal relationship to other network faults occurring in the network element. One goal of this system is to reduce the amount

of trap data that must be generated and communicated. In the system of Chirashnya, many alarms (which the examiner apparently construes as the "traps" of claim 1) and other events are received by a diagnostic unit 20. The diagnostic unit analyzes *all* of the received alarms to determine a root cause of a failure (col. 8, lines 11-29 et seq.). Thus, Chirashnya does not purport to achieve any reduction in the amount of information about alarms that is communicated to and then analyzed by the diagnostic unit. In contrast, in claim 1, not every network fault is represented by a trap that is sent to the network management station; rather, information is processed in the network element to produce the traps with the advantage of reducing the number of traps that are sent to the network management station and analyzed by it, by sending traps for only a subset of the faults. As explained in the applicant's specification "... a fault correlation task is performed by fault correlation software 30, 32, 36, 37 running in each of the network elements 31, 33, 34, 35, ... [thus] *the number of traps sent to management stations is reduced.* The management station and the operator are presented with *only relevant fault information targeting the root causes of faults.*" (specification, p. 5, lines 1-9, emphasis added).

Chirashnya, on the other hand, *requires* that alarms for all faults be sent, because the causality analysis is performed *after the alarms are collected* at the diagnostic unit. Chirashnya reports alarms "for *each* detected fault condition" (see col. 9, lines 47-48, emphasis added) or issues a batch alarm when a certain *number* of faults have accumulated (see col. 13, lines 1-3). Neither reporting alarms for each fault nor reporting alarms based on a number of faults describes or would have made obvious sending traps for a subset of the network faults that includes network faults that "were *identified* as having a causal relationship to other network faults" (emphasis added).

Chirashnya also does not describe and would not have made obvious generating traps "based on" processing information about which faults cause others. In fact, Chirashnya teaches away from *generating* traps based on such processing, because the processing performed in Chirashnya's system requires the alarms as *input*.

The activities cited in the advisory action, "receiv[ing] the malfunction assessments," "compar[ing] the assessments ... to expected, baseline values," and "recommend[ing] to the user to take further diagnostic action," all describe information processing events that take place *after* alarms have been generated (see col. 9, lines 49-66 and surrounding description). The alarm-

generating activities, which the advisory action does not address, all take place *before* the quoted information processing:

Nodes 24 comprise event collectors 30 which are preferably implemented as software agents running as a part of network management software that runs on all of the nodes. These agents gather system events that occur at their respective nodes, including alarms and configuration changes. Event collectors 30 send these events, in the form of management packets, to a primary event collector 32 running on primary node 26. Event collector 32 passes the stream of events to diagnostic unit 20 for processing, as described below. (col. 7, lines 56-65.)

Thus, Chirashnya does not describe generating traps "based on" the results of the information processing, and, in fact, teaches away from doing so by describing performing the information processing based on the alarms.

Claims 10, 11, and 13 are each patentable for at least similar reasons as claim 1.

All of the dependent claims are patentable for at least the reasons for which the claims from which they depend are patentable.

Any circumstance in which the applicant has (a) addressed certain comments of the examiner does not mean that the applicant concedes other comments of the examiner, (b) made arguments for the patentability of some claims does not mean that there are not other good reasons for patentability of those claims and other claims, (c) amended or canceled a claim does not mean that the applicant concedes any of the examiner's positions with respect to that claim or other claims, or (d) has removed language from a claim indicates that a related feature has been deliberately expressed more broadly than previously expressed and may require additional searching by the examiner.

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Respectfully submitted,

Date: _____

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